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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,274	07/29/2003	William M. Peterson	4016-PA2	5691
29370	7590	01/27/2005	EXAMINER	
ROBERT A. PARSONS 340 E. PALM LN SUITE 260 PHOENIX, AZ 85004			WALSH, DANIEL I	
			ART UNIT	PAPER NUMBER
			2876	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/629,274	Applicant(s) PETERSON, WILLIAM M.	
	Examiner Daniel I Walsh	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-29 is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7-10,12-15,17,18,20 and 21 is/are rejected.
- 7) ☒ Claim(s) 4,6,11,16,19,22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt is acknowledged of the Response received on 18 November 2004.
2. The indicated allowability of claims 1-29 is withdrawn in view of the newly discovered reference(s) (see below). Rejections based on the newly cited reference(s) follow. Any delay is regretted.

Claim Objections

3. Claim 20 is objected to because of the following informalities:

Replace "FBLRU-type control" with – Forward-Backward-Left-Right-Up (FBLRU)
Joystick control --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, 7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi (US 4,004,354) in view of Roschelle et al. (US 6,628,918).

Yamauchi teaches desks having a plurality of positions to receive people, a plurality of vote boxes, one each affixed at each of the plurality of actual positions, each vote box including a switch with at least two positions, and a cable assembly having first and second ends and a plurality of electrical conductors extending between the ends, each of the vote boxes being coupled to the cable assembly intermediate the first and second ends (FIG. 3). Though Yamauchi is silent to a flat ribbon cable assembly, the Examiner notes that the selection of a particular type of cable (flat ribbon, for example) is an obvious matter of design variation, well within the skill in the art, to provide the predicted results such as a lighter cable, a cable with a larger surface area which aids in heat dissipation and therefore the ability to handle larger electrical loads, providing ease of customization by connecting peripheral devices using ribbon connectors, ease of adhering the cable to surfaces, and a thinner cable for aesthetics, for example.

Yamauchi teaches desks, and therefore is silent to a table, Yamauchi is silent to a monitor system including a monitor positioned to be observed by the people at any of the positions, and a flat ribbon cable assembly coupling the vote boxes and also coupled to the monitor. Re claim 3, the Examiner notes that it is obvious to send information through common lines (multiplexed) as is conventional in the art of computing, so that a separate and unique line is not required for each signal, thereby reducing costs, space, etc. (see FIG. 5) which teaches shared lines. Therefore, multiplexing is an obvious expedient. Re claim 5, the limitations are taught by FIG. 2. Re claim 7, the Examiner notes that it would have been obvious to an artisan of ordinary skill in the art to use double sided tape to affix the flat ribbon cable, in order to prevent it from moving. The use of adhesives to secure wires, cables, etc. is well known and conventional in the art, to produce expected results or adhesion, with the possibility of removability if later required, thus

being more flexible than a permanent/physically altering method of attachment. Re claim 12, the Examiner broadly interprets the teachings of Yamauchi to include a microcomputer that tallies votes/answers (see FIG. 1), while also noting that the use of a computer to tally votes is well known and conventional (see Nickerson US 5,226,177).

Roschelle et al. teaches a monitor positioned to be observed by the plurality of actual positions (col 1, lines 55+) when questioning/polling a group. Roschelle teaches that the monitor is able to display the results of the polling/voting to the teacher and/or ground members, so it is obvious that the vote boxes and monitor are coupled together, since the results from the boxes are displayed on the display means.

Though Yamauchi/Roschelle et al. are silent to the use of a table, as they teach a plurality of desks, the Examiner notes that it would have been obvious to use such a system in a table environment, since tables are also well known and conventional in education environments and can be used to create a more intimate atmosphere, when space constraints are an issue, when the group is small enough to sit at a table, etc. Re claim 2, the Examiner notes that it is obvious that a display can be positioned in a multitude of positions, including an amount at least greater than the number of conductors in the cable, simply by adjusting the position of the monitor.

Yamauchi/Roschelle et al. teach a cable and therefore are silent to a flat ribbon cable assembly. However, the Examiner notes that flat ribbon cables are well known and conventional in the art, and their selection is an obvious expedient since it is well known in the art that flat ribbon cables are thinner/take up less space than conventional round cables, are able to dissipate heat well and therefore can handle higher loads, and are better suited for custom manufacturing.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Yamauchi/Roschelle et al. in order to have a display means for showing those being polled/voting, visual information.

5. Claims 8-10, 13-15 and 17-18, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi/Roschelle et al., as applied above, further in view of Navarro (US 4,062,615).

The teachings of Yamauchi/Roschelle et al. have been discussed above.

Yamauchi/Roschelle et al. are silent to a press on insulation displacement connector.

Navarro teaches such a connector (FIG. 7). The Examiner notes that though Navarro is silent to a voting system, that such a connector is well known and conventional for connector flat ribbon cables together. Navarro (FIG. 7) teaches a two-part connector with blades that extend to make contact, and that wires from two different devices (such as the vote box and the cable) could be coupled with expected results. Though Navarro is silent to placing the connector under the table, it is obvious that the connector can be located there, as a matter of design variation, to reduce clutter or hide wires, to limit tampering of the wires, etc. for example. Additionally, the Examiner notes that it is well known and conventional that wires are typically hidden from the top surface of tables, desks, as much as possible for aesthetics and clutter reasons, and the use of grommets or holes are examples of means to do so. Accordingly, it would have been obvious to hide the wires by attaching them on the underside of the tables, to minimize the appearance of wires, and reduce clutter, etc.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Yamauchi/Roschelle et al. with those of Navarro.

One would have been motivated to do this to couple flat ribbon cables together, as is well known and conventional in the art.

Re claims 13-15 and 17-18, the limitations have been discussed above.

Re claim 20, though the prior art teaches buttons and a toggle, but is silent to a FBLRU control, the Examiner notes that controls for individual input such as keyboards, joysticks, buttons, etc. are all well known and conventional in the art. The selection of a type of input device is a matter of design variation, to provide a certain type of input device for the user. Selection of such an input type is well within the skill of the art, and does not appear critical to the invention.

Re claim 21, though the prior art is silent to a PC, the examiner notes that it is an obvious expedient to use a personal computer for tallying (see Nickerson US 5,226,177), motivated by their inexpensive prices these days, and the ability they provide for alternative uses and processing power.

Allowable Subject Matter

6. Claims 4, 6, 11, 16, 19, and 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 24-29 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record teaches mounting the voting boxes on top of the desk, and therefore is silent to attaching them on the underside of a table. Though the Examiner maintains that

attaching the wiring underneath is an obvious expedient (especially in light of current desks/tables with grommets to allow wires to pass to the underside of the table to hide wires), the Examiner does not believe that attaching the voting boxes is, in light of the prior art teachings. Additionally, the prior art is silent to the flat ribbon cable assembly being coupled to the monitor through an adaptor box and a round flexible cable, that the vote boxes have spaced apart mounting flanges defining a flat mounting surface with a centrally located channel for clearance of the ribbon cable assembly, predischarging of the cable by the microcomputer, and encryption checks to detect tampering.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Simmons et al. (US 3,947,669) and Nickerson (US 5,226,177).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Walsh whose telephone number is (571) 272-2409. The examiner can normally be reached between the hours of 7:30am to 4:00pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone numbers for this Group is (703) 872-9306.

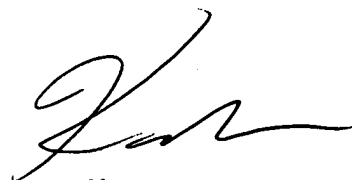
Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [daniel.walsh@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



DW
1/19/05



KARL D. FRECH
PRIMARY EXAMINER